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## (54) SOLENOID VALVE, AND HIGH-PRESSURE PUMP USING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To simplify component constitution by imparting plural functions to one member. SOLUTION: In this solenoid valve 30, a cylinder 62 is formed in an inner circumferential face of a valve case 9. and a valve element 63 of a spool is stored slidably in the cylinder 62. The valve element 63 is provided with an armature function for forming a magnetic path in addition to such a function essential to the valve element as sliding inside the cylinder 62 to change a flow passage area. The valve case 9 is provided with a stator function for forming the magnetic path in addition to a cylinder function for storing the valve element 63 slidably. The valve element 63 and the valve case 9 are made of a flexible magnetic material, and thin hardened layers are

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prepared on surfaces thereof by surface treatment or heat treatment.

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